The works of Brett Nortje part 32 [20th of February 2014]

Cure to diacetyl.

I find that this is where the lungs become smaller? this will surely increase the pressure on them when the person is trying to function in anything they might try, and, if the lungs were relieved of this quickly each week i suppose, the person will have no reason to complain and get into bad health and sue the company, as that is bad for the company and good for the individual. of course, when money changes hands from a company to an individual, i suppose money grows, so it could be a good thing, considering if the bank were to invest the money from the person if they put it into fixed deposit.

Nevertheless, if the person gets money or not, there needs to be a cure. i suggest we heal the lungs by letting the person sweat it out each day with exercise or in a sauna. these are both good, but let's say that doesn't work? in that case...

We would need to get medically active! yes! we need to get rid of the monoxide. this can be done by pumping oxygen into the person's lungs, as, then it will form ozone and get farted out or something.

nth root.

> Quote by: **http://en.wikipedia.org/wiki/Nth_root#Computing_principal_roots**
> *nth roots[edit]*
>
> *Every complex number has n different nth roots in the complex plane. These are*
> *\eta,\;\eta\omega,\;\eta\omega^2,\;\ldots,\;\eta\omega^{n-1},*
>
> *where η is a single nth root, and 1, ω, ω2, ... ωn−1 are the nth roots of unity. For example, the four different fourth roots of 2 are*
> *\sqrt[4]{2},\quad i\sqrt[4]{2},\quad -\sqrt[4]{2},\quad\text{and}\quad -i\sqrt[4]{2}.*
>
> *In polar form, a single nth root may be found by the formula*
> *\sqrt[n]{re^{i\theta}} \,=\, \sqrt[n]{r}\,e^{i\theta/n}.*
>
> *Here r is the magnitude (the modulus, also called the absolute value) of the number whose root is to be taken; if the number can be written as a+bi then r=\sqrt{a^2+b^2}. Also, \theta is the angle formed as one pivots on the origin counterclockwise from the positive horizontal axis to a ray going from the origin to the number; it has the properties that \cos \theta = a/r, \sin \theta = b/r, and \tan \theta = b/a.*
>
> *Thus finding nth roots in the complex plane can be segmented into two steps. First, the magnitude of all the nth roots is the nth root of the magnitude of the original number. Second, the direction of a ray from the origin to one of the nth roots involves an angle \theta / n relative to the positive horizontal axis that is[clarification needed] 1/n times the angle \theta of a ray from the origin to the original number relative to the positive horizontal axis. Furthermore, all n of the nth roots are at equally spaced angles from each other.*
> *As with square roots, the formula above cannot be applied consistently to the entire complex plane, but instead leads to a branch cut at the points where θ / n suddenly “jumps”.[clarification needed]*

If we want to find the roots of numbers, we need to basically see how many times the multiple of that number fits into the other. we can do this by taking the 'divisor' and multiplying it up to see how many times it fits into the nth term. if you were to observe powers, then you would multiply it by itself until it reaches the closest to the number it can, then observe the rest by dividing the remaining numbers by the power number on a calculator, or, if you are feeling a little crazy, use paper or your mind.

Trigonometric functions.

> Quote by: **http://en.wikipedia.org/wiki/Exponent**
> *Trigonometric functions[edit]*
>
> *Main article: Euler's formula*
>
> *It follows from Euler's formula stated above that the trigonometric functions cosine and sine are*
>
> $$\cos(z) = \frac{e^{iz} + e^{-iz}}{2}; \qquad \sin(z) = \frac{e^{iz} - e^{-iz}}{2i}$$
>
> *Historically, cosine and sine were defined geometrically before the invention of complex numbers. The above formula reduces the complicated formulas for trigonometric functions of a sum into the simple exponentiation formula*
>
> $$e^{i(x+y)}=e^{ix}\cdot e^{iy}$$
>
> *Using exponentiation with complex exponents may reduce problems in trigonometry to algebra.*

We could cancel i, as i divided by i = 1 so replace i with one in the answer. actually the answer is ei divided by 2i as they cancel each other out.

Cell proliferation.

When we want to heal someone of something, or replace something, it might be wise to have the cells divide prolifically. let's take a look at cell growth?

> Quote by: **http://en.wikipedia.org/wiki/Cell_proliferation**
> *The term cell growth is used in the contexts of cell development and cell division (reproduction). When used in the context of cell division, it refers to growth of cell populations, where one cell (the "mother cell") grows and divides to produce two "daughter cells" (M phase). When used in the context of cell development, the term refers to increase in cytoplasmic and organelle volume (G1 phase), as well as increase in genetic material (G2 phase) following the replication during S phase.[1]*

So, we want the cells to divide faster. how do cells divide?

> Quote by: **http://en.wikipedia.org/wiki/Cell_proliferation**
> *Cell reproduction is asexual. For most of the constituents of the cell, growth is a steady, continuous process, interrupted only briefly at M phase when the nucleus and then the cell divide in two.*
>
> *The process of cell division, called cell cycle, has four major parts called phases. The first part, called G1 phase is marked by synthesis of various enzymes that are required for DNA replication. The second part of the cell cycle is the S phase, where DNA replication produces two identical sets of chromosomes. The third part is the G2 phase. Significant protein synthesis occurs during this phase, mainly involving the production of microtubules, which are required during the process of division, called mitosis. The fourth phase, M phase, consists of nuclear division (karyokinesis) and cytoplasmic division (cytokinesis), accompanied by the formation of a new cell membrane. This is the physical division of "mother" and*

> *"daughter" cells. The M phase has been broken down into several distinct phases, sequentially known as prophase, prometaphase, metaphase, anaphase and telophase leading to cytokinesis.*
>
> *Cell division is more complex in eukaryotes than in other organisms. Prokaryotic cells such as bacterial cells reproduce by binary fission, a process that includes DNA replication, chromosome segregation, and cytokinesis. Eukaryotic cell division either involves mitosis or a more complex process called meiosis. Mitosis and meiosis are sometimes called the two "nuclear division" processes. Binary fission is similar to eukaryote cell reproduction that involves mitosis. Both lead to the production of two daughter cells with the same number of chromosomes as the parental cell. Meiosis is used for a special cell reproduction process of diploid organisms. It produces four special daughter cells (gametes) which have half the normal cellular amount of DNA. A male and a female gamete can then combine to produce a zygote, a cell which again has the normal amount of chromosomes.*

So, the enzymes will 'pair off' to replicate dna, then they form two identical chromosomes, then they absorb proteins and divide, then they divide further and form cell membranes, also known as mother cells dividing into two daughter cells. previously, you might remember us keeping the cells dividing, as to stop senesence, so this should not be that hard at all?

Now, to speed this up, obviously you could skip the making of proteins and ingest chemical supplements for proteins and enzymes. then, you could speed up - and this is the real test - the protein division. this would require, instead, just more proteins! just stick them in there...

So, if the proteins are there, they still need to divide into cell membranes, and there is no way we can ingest these, can we? well, let's say we cannot, at present? how do we divide proteins faster? i suppose we could try to antagonize the proteins by spreading them over a greater area, like pioneers, but that is weird and won't work. so, we need to use something to erect cell walls between the proteins, splitting them in two?

> Quote by: **http://www.ncbi.nlm.nih.gov/pubmed/22661688**
> *Daptomycin is a lipopeptide antibiotic used clinically for the treatment of certain types of Gram-positive infections, including those caused by methicillin-resistant Staphylococcus aureus (MRSA). Details of the mechanism of action of daptomycin continue to be elucidated, particularly the question of whether daptomycin acts on the cell membrane, the cell wall, or both. Here, we use fluorescence microscopy to directly visualize the interaction of daptomycin with the model Gram-positive bacterium Bacillus subtilis. We show that the first observable cellular effects are the formation of membrane distortions (patches of membrane) that precede cell death by more than 30 min. Membrane patches are able to recruit the essential cell division protein DivIVA. Recruitment of DivIVA correlates with membrane defects and changes in cell morphology, suggesting a localized alteration in the activity of enzymes involved in cell wall synthesis that could account for previously described effects of daptomycin on cell wall morphology and septation. Membrane defects colocalize with fluorescently labeled daptomycin, DivIVA, and fluorescent reporters of peptidoglycan biogenesis (Bocillin FL and BODIPY FL-vancomycin), suggesting that daptomycin plays a direct role in these events. Our results support a mechanism for daptomycin with a primary effect on cell membranes that in turn redirects the localization of proteins involved in cell division and cell wall synthesis, causing dramatic cell wall and membrane defects, which may ultimately lead to a breach in the cell membrane and cell death. These results help resolve the longstanding questions regarding the mechanism of action of this important class of antibiotics.*

If we can 'erect walls' inside the protein, then we can split them quicker to form cells membranes. of course this might antagonize the system, with small proteins, but, if we use enough proteins, they will only need to divide once per dose of daptomycin, then add more proteins, then more daptomycin, and so forth.